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10/577,473	04/27/2006	Ryutaro Yamanaka	L9289.06152	6658

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EXAMINER

NGON, RICKY

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2857

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/577,473	Applicant(s) YAMANAKA ET AL.	
	Examiner RICKY NGON	Art Unit 4148	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 April 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4 and 6-10 is/are rejected.
- 7) ☒ Claim(s) 5 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 April 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|----------------------------------------------------------------------------------------|-------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>04/27/2006</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Information Disclosure Statement

2. The references listed in the Information Disclosure Statements filed on April 27, 2006 have been considered by the examiner (see attached PTO-1449 form).

Specification

3. The disclosure is objected to because of the following informalities:

The abstract exceeds 150 words. The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words.

Appropriate correction is required.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. **Claims 1 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shida et al. [US 2003/0162557 A1; hereinafter "Shida"] in view of Ritsuo et al. [JP 2003-215259; hereinafter "Ritsuo"].**

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Regarding claim 1, Shida teaches a disaster prediction system in which a disaster prediction apparatus 3 (center server) collects abnormality detection signals relating to a natural disaster from a plurality of mobile communications apparatuses 51, 53, 55 (subscriber terminal) via a wireless communications network 1 (mobile communication network) (fig 1, para [0027]) and

- provides information (notice information) (via center server 3) related to the natural disaster analyzed by the disaster prediction apparatus to the mobile communications apparatuses via the wireless communications network (para [0031]), the disaster prediction system comprising:

said mobile communications apparatuses, each mobile communications apparatus comprising:

- a first communications section (fig 1 – reporting subscriber terminal 53, in wireless communication connection with base station 6a) that transmits the present position to a location management apparatus 9 (carrier server) via the wireless communications network (para [0033]-[0034]), transmits (reporting) the abnormality detection signal to the disaster prediction apparatus via the wireless communications network (para [0038]), and receives the information (notice information) related to the natural disaster from the disaster prediction apparatus via the wireless communications network (para [0046]); and

- an alerting section (display device) that alerts the information (safety confirmation result) related to the natural disaster received by the first communications section (para [0060]);

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- the location management apparatus receives present positions (regions) from the plurality of mobile communications apparatuses via the wireless communications network (para [0033]-[0034]) and manages location information of each mobile communications apparatus (para [0029]); and

said disaster prediction apparatus, comprising:

- a second communications section 33 (report processor) that receives abnormality detection signals from the plurality of mobile communications apparatuses via the wireless communications network (para [0038]), receives the location information (subscriber position information) of each mobile communications apparatus from the location management apparatus 9 (carrier server) via the wireless communications network (para [0049]), and transmits the information (notice information) related to the natural disaster to the plurality of mobile communications apparatuses via the wireless communications network (para [0046]);

- a disaster prediction section (fig 1, center server 3 includes report processor 33, map-related processor 39, and operator terminal 7) that collects (via report processor 33) and analyzes (via map-related processor 39 and operator terminal 7) the abnormality detection signals (disaster information and information of the disaster occurring region) received from the plurality of mobile communications apparatuses per area (region) based on the location information and predicts (judges) occurrence of the natural disaster per area (para [0038]- [0044]); and

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- an information generating section 31 (notice information generator) that generates the information (emergency measures information) related to the natural disaster based on results of prediction by the disaster prediction section (para [0046]).

While Shida teaches the above mobile communication apparatus having a communication section to transmit position information and disaster information, Shida does not specifically disclose the mobile communication apparatus including a location detection section and abnormal signal detection section.

However, Ritsuo teaches a system for gathering earth magnetic information having a mobile communication apparatus (personal digital assistant) which includes a location detection section (GPS) that locates a present position and an abnormal signal detection section (magnetic sensor) that receives an electromagnetic signal (earth magnetism) coming from a natural world (para [0017], lines 5-8), detects an abnormal signal (change of earth magnetism) and outputs an abnormality detection signal (absolute value) (para [0027], lines 15-20);

At the time of the invention, it would have been obvious to one of ordinary skill in the art to include a gps and a earth magnetism sensor for detecting earth magnetic signals coming from the earth as taught by Ritsuo in the subscriber terminal when determining disaster information as disclosed by Shida to increase the speed and efficiency of notifying people of potential disaster in the environment (para [0003]-[0004]).

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Regarding claim 6, Shida teaches a disaster prediction system in which a disaster prediction apparatus 3 (center server) collects abnormality detection signals relating to a natural disaster from a plurality of mobile communications apparatuses 51, 53, 55 (subscriber terminal) via a wireless communications base station 6a (base station) and a communications network 1 (mobile communication network) and

- provides information (notice information) (via center server 3) related to the natural disaster analyzed by the disaster prediction apparatus to the mobile communications apparatuses via the communications network and the wireless communications base station (para [0031]), said disaster prediction system comprising:

said mobile communications apparatuses, each mobile communication apparatus comprising:

- a first communications section (fig 1 – reporting subscriber terminal 53, in wireless communication connection with base station 6a) that transmits (reporting) the abnormality detection signal to the wireless communications base station (para [0038]) and receives the information (notice information) related to the natural disaster from the disaster prediction apparatus via the communications network and the wireless communications base station (para [0046]); and

- an alerting section (display device) that alerts the information (safety confirmation result) related to the natural disaster received by the first communications section (para [0060]);

- a wireless communications base station 6a (base station) that manages communications with a plurality of mobile communications in a coverage area of the

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wireless communications base station and communications with the disaster prediction apparatus and a location management apparatus 9 (carrier server) (fig 1, para [0027]-[0029]) and transmits location information managed by the wireless communications base station to the location management apparatus via the communications network (fig 1, para [0033]-[0034]);

- the location management apparatus that receives the location information from the wireless communications base station via the communications network and manages the location information (para [0029]); and

- the disaster prediction apparatus, comprising:

- a second communications section 33 (report processor) that receives abnormality detection signals from the plurality of mobile communications apparatuses via the communications network and the wireless communications base station (para [0038]), receives the location information (subscriber position information) from the location management apparatus 9 (carrier server) via the communications network (para [0049]), and transmits information (notice information) related to the natural disaster to the plurality of mobile communications apparatus via the communications network and the wireless communications base station (base station 6a, is in communication path from the center server 3 to the subscriber terminal) (fig 1, para [0046]);

- a disaster prediction section (fig 1, center server 3 includes report processor 33, map-related processor 39, and operator terminal 7) that collects (via report processor 33) and analyzes (via map-related processor 39 and operator terminal 7) abnormality

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detection signals (disaster information and information of the disaster occurring region) received from the plurality of mobile communications apparatuses per area (region) based on the location information and predicts (judges) occurrence of the natural disaster per area (para [0038]-[0044]); and

- an information generating section 31 (notice information generator) that generates the information (emergency measures information) related to the natural disaster based on results of prediction by the disaster prediction section (para [0046]).

While Shida teaches the above mobile communication apparatus having a communication section to transmit position information and disaster information, Shida does not specifically disclose the mobile communication apparatus including an electromagnetic signal detection section.

However, Ritsuo teaches a system for gathering earth magnetic information having a mobile communication apparatus (personal digital assistant) which includes an abnormal signal detection section (magnetic sensor) that receives an electromagnetic signal (earth magnetism) coming from a natural world (para [0017], lines 5-8), detects an abnormal signal (change of earth magnetism) and outputs an abnormality detection signal (absolute value) (para [0027], lines 15-20);

At the time of the invention, it would have been obvious to one of ordinary skill in the art to include a earth magnetism sensor for detecting earth magnetic signals coming from the earth as taught by Ritsuo in the subscriber terminal when determining disaster information in the environment disclosed by Shida to increase the speed and efficiency of notifying people of potential disaster in the environment (para [0003]-[0004]).

6. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Shida in view of Ritsuo, as applied to claim 1 above, and further in view of Chitrapu [US 2003/0119559 A1].

Shida in view of Ritsuo teaches the location management apparatus 9 (carrier server) manages each mobile communications apparatus's location information (para [0033]-[0034]); and

- the disaster prediction section (fig 1, center server 3 includes report processor 33, map-related processor 39, and operator terminal 7) collects (via report processor 33) and analyses (via map-related processor 39 and operator terminal 7) (Shida - para [0038]- [0044]) the abnormality detection signals (absolute value) (Ritsuo - para [0027], lines 15-20) received from the plurality of mobile communications apparatuses and predicts (judges) occurrence of the natural disaster per area of prediction (Shida - para [0038]- [0044]);

- the information generating section generates 31 (notice information generator) alert information (emergency measures information) based on a result of prediction per area of prediction by the disaster prediction section (Shida - para [0046]).

While Shida in view of Ritsuo teaches the above limitations, Shida in view of Ritsuo does not specifically disclose the system including the disaster prediction section setting areas of prediction based on the location information of each mobile communications.

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However, Chitrapu teaches a system and method for providing wireless communications between user equipment (UE) (para [0013]) having a disaster prediction section (geolocation processor) setting areas of prediction (set of areas) based on the location information (relative location data) of each mobile communications apparatus (UE) (para [0024]).

At the time of the invention, it would have been obvious to one of ordinary skilled in the art to set areas based on location information as taught by Chitrapu when predicting occurrence of disaster as taught by Shida in view of Ritsuo in order to, "more readily meet service demands," by controlling transmission beam formation (para [0009]-[0011]).

7. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Shida in view of Ritsuo, as applied to claim 1 above, and further in view of Yoshihara [JP 2003-043153].

While Shida in view of Ritsuo teaches the above limitations of the abnormal signal detection section, Shida in view of Ritsuo does not specifically disclose the abnormal signal detection section includes a storage section and a comparison section.

However, Yoshihara teaches an earthquake prediction system for measuring an electromagnetism signal which includes an abnormal signal detection 7 (display device) (drawing 3) comprises:

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- a storage section 48 (transmission section) that stores a threshold (abnormal level) against which an electromagnetic signal level (measurement data) is compared; and

- a comparison section 42 (signal conditioning control) that compares the electromagnetic signal level to the threshold stored in the storage section and outputs an abnormality detection signal (alarm sound signal) when the electromagnetic signal level exceeds the threshold (para [0027]-[0029]).

At the time of the invention, it would have been obvious to one of ordinary skilled in the art to perform the signal conditioning process as taught by Yoshihara when measuring earth magnetism with the personal data assistant for detecting potential disaster in the environment disclosed by Shida in view of Ritsuo to increase reliability and accuracy of earthquake measurement prediction (para [0005]).

8. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Shida in view of Ritsuo, as applied to claim 1 above, and further in view of Yoshihara, Okuyama [US 2001/0050366 A1], and Nakano et al. [US 6445151 B1; hereinafter "Nakano"].

Shida in view of Ritsuo teaches the second communications section 33 (report processor) transmits the abnormality detection signal output from the second comparison section output from the calculation section to the disaster prediction apparatus via the wireless communications network (Shida – para [0038]);

- the second communications section 33 (report processor) receives abnormality detection signals from the plurality of mobile communications apparatuses via the wireless communications network (Shida - para [0038]); and

- the disaster prediction section (fig 1, center server 3 includes report processor 33, map-related processor 39, and operator terminal 7) collects (via report processor 33) and analyzes (via map-related processor 39 and operator terminal 7) the abnormality detection signals (disaster information and information of the disaster occurring region) received from the plurality of mobile communications apparatuses per area (region) of prediction and predicts (judges) occurrence of the natural disaster per area (Shida - para [0038]-[0044]).

While Shida in view of Ritsuo teaches the above limitations of the abnormal signal detection section, Shida in view of Ritsuo does not specifically disclose the means for calculating the maximum value and average value of the electromagnetic signal level or the abnormal signal detection section including a storage section and a comparison section.

However, Yoshihara teaches an earthquake prediction system for measuring an electromagnetism signal which includes an abnormal signal detection 7 (display device) (drawing 3) comprises:

- a first storage section 48 (transmission section) that stores a threshold (abnormal level) against which an electromagnetic signal level (measurement data) is compared; and

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- a first comparison section 42 (signal conditioning control) that compares the electromagnetic signal level to the threshold stored in the storage section and outputs an abnormality detection signal (alarm sound signal) when the electromagnetic signal level exceeds the threshold (para [0027]-[0029]).

At the time of the invention, it would have been obvious to one of ordinary skilled in the art to perform the signal conditioning process as taught by Yoshihara when measuring earth magnetism with the personal data assistant for detecting potential disaster in the environment disclosed by Shida in view of Ritsuo to increase reliability and accuracy of earthquake measurement prediction (para [0005]).

While Shida in view of Ritsuo and Yoshihara teaches the above limitations of the abnormal signal detection section, Shida in view of Ritsuo Yoshihara does not specifically disclose the abnormal signal detection section including a counting section, a second storage section and a second comparison section.

However, Okuyama teaches a sensor device having a correction circuit for compensating variations of signal measurements which includes:

- a counting section 126 (counter) that counts the number of times the first comparison detection signal is output from the first comparison section 125 (comparator) in a set period of time (dynamic range) (para [0079]-[0080]);

- a second storage section 120 (FPN memory) that stores a second threshold (pixel correction data) (para [0074]) against which a count value in the counting section is compared (para [0079]-[0080]);

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- a second comparison section 127 (comparator) that compares the count value to the second threshold (number setting) stored in the second storage section and outputs (via bias data generation circuit 517) an abnormality detection signal (bias setting data) when the count value exceeds the second threshold (para [0079]-[0082]).

At the time of the invention, it would have been obvious to one of ordinary skilled in the art to perform the counting and comparison signal processing as taught by Okuyama on the comparison detection signal generated from the first comparison threshold section disclosed by Shida in view of Ritsuo and Yoshihara to increase sensor reading accuracy by automatically adjusting the canceling current through signal conditioning (para [0002]&[0011]).

While Shida in view of Ritsuo, Yoshihara and Okuyama teaches the above limitations of the abnormal signal detection section, Shida in view of Ritsuo, Yoshihara and Okuyama does not specifically disclose a calculation section that calculates and outputs a maximum value and average value of the electromagnetic signal level in the set period of time.

However, Nakano teaches a controller for a motor driven power steering mechanism including:

- a calculation section (digital signal processor) that calculates and outputs a maximum value and average value (average of values) of the signal level (control signal) in the set period of time (ABS & col 4, lines 1-11).

At the time of the invention, it would have been obvious to one of ordinary skilled in the art to perform the calculation step of finding the average and max value as taught

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by Nakano after measuring and processing the electromagnetic signal disclosed by Shida in view of Ritsuo, Yoshihara and Okuyama in order to reduce noise error in the signal processing controller (col 3, lines 5-16).

At the time of the invention, it would have been obvious to one of ordinary skilled in the art to have realized, based on the combination above, in that after producing the maximum values and average values of the electromagnetic signals as taught by the combination of Yoshihara, Okuyama and Nakano, these values would then be send back to the second communication section to be sent to the disaster prediction section for analysis and prediction of natural disaster as taught by Shida in view of Ritsuo.

9. Claims 7 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shida in view of Ritsuo, as applied to claim 1 above, and further in view of Fujisawa et al. [US 2002/0115478 A1; hereinafter “Fujisawa”].

Regarding claim 7, While Shida in view of Ritsuo teaches the above limitations of the alerting section in the mobile communications apparatus alerting and communicating information related to the natural disaster, Shida in view of Ritsuo does not specifically disclose the alerting section comprises a vibration control section and a vibration section.

However, Fujisawa teaches a mobile communication device 12 (watched-shaped information processing device) processing incoming information which includes the alerting section 25 (central control circuit) comprises a vibration control section (CPU) and a vibration section 27 (vibrator) (fig 2, para [0133] & [0136]);

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the vibration control section changes a strength of vibration of the vibration section in accordance with the received information (incoming call) (para [0156]).

The word "strength" in plain meaning is defined as intensity, and "intensity of control signal" can be interpreted as having the signal ranging from low (off) to high (on); therefore "producing a vibration" can be considered "on", while "not producing a vibration" can be considered "off."

At the time of the invention, it would have been obvious to one of ordinary skilled in the art to include the vibrator and central control circuit for notifying the user of information as taught by Fujisawa in the subscriber terminal when alerting information related to the natural disaster disclosed by Shida in view of Ritsuo in order to reduce the time required to answer the telephone (para [0002]).

Regarding claim 8, While Shida in view of Ritsuo teaches the above limitations of the alerting section in the mobile communications apparatus alerting and communicating information related to the natural disaster, Shida in view of Ritsuo does not specifically disclose the alerting section comprises a flash cycle/light emission intensity adjusting section and a light emission section.

However, Fujisawa teaches a mobile communication device 12 (watched-shaped information processing device) processing incoming information which includes the alerting section 25 (central control circuit) comprises a flash cycle/light emission intensity adjusting section (CPU) and a light emission section 28 (light emitting unit) (fig 2, para [0133] & [0136]); and

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the flash cycle/light emission intensity adjusting section changes the light emission intensity (blink light) of the light emission section in accordance with the received information (incoming call) (para [0156]).

The “intensity” of the light emission can be interpreted as having the emission ranging from low (off) to high (on); therefore “producing the light to blink” can be considered “on”, while “not producing the light to blink” can be considered “off.”

At the time of the invention, it would have been obvious to one of ordinary skilled in the art to include the light emitting unit and central control circuit for notifying the user of information as taught by Fujisawa in the subscriber terminal when alerting information related to the natural disaster disclosed by Shida in view of Ritsuo in order to reduce the time required to answer the telephone (para [0002]).

10. Claims 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Shida in view of Ritsuo, as applied to claim 1 above, and further in view of Hirobumi [JP 2003-273969].

Regarding claim 9, While Shida in view of Ritsuo teaches the above limitations of the alerting section in the mobile communications apparatus alerting and communicating information related to the natural disaster, Shida in view of Ritsuo does not specifically disclose the alerting section comprises a sound information storage section, a sound reproduction section, a volume adjusting section and a sound emission section.

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However, Hirobumi teaches a mobile communication device 1(portable telephone) processing incoming information which includes the alerting section comprises a sound information storage section 4q (musical piece data storage area) (drawing 5), a sound reproduction section 3 (control part), a volume adjusting section 14 (ringer actuator) and a sound emission section 13 (ringer generator) (drawing 4, para [0038]); and

the sound reproduction section selects sound information (setting the combination of a sound pitch) stored in the sound information storage section in accordance with the received information (mail arrival), outputs a reproduced sound signal (via control signal sent from the control part 3 to the loud speaker 15) and a volume adjustment signal to the volume adjusting section and adjusts (via control signal sent from the control part 3 to the ringer actuator 14) the volume of the reproduced sound (para [0038] & [0040]).

At the time of the invention, it would have been obvious to one of ordinary skilled in the art to include the sound system and control part for notifying the user of information as taught by Hirobumi in the subscriber terminal when alerting information related to the natural disaster disclosed by Shida in view of Ritsuo in order to increase alert accuracy by having definable sound output (para [0005]).

11. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Shida in view of Ritsuo, as applied to claim 1 above, and further in view of Alexander et al. [US 2002/0143469 A1; hereinafter “Alexander”].

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Regarding claim 10, While Shida in view of Ritsuo teaches the above limitations of the alerting section in the mobile communications apparatus alerting and communicating information related to the natural disaster, Shida in view of Ritsuo does not specifically disclose the alerting section comprises an image information storage section, an image reproduction section and a display section.

However, Alexander teaches a mobile communication device 12 (field device) processing incoming information which includes the alerting section 120 (central electronic complex) comprises an image information storage section 122 (magnetic disk drive), an image reproduction section (processing unit) and a display section 124 (LCD) (para [0093]); and

the image reproduction section selects image information stored in the image storage section in accordance with the received information (reports and maps) related to the natural disaster (geographical area damage), outputs an image reproduction signal (via control signal sent from the processing unit to the LCD 124) to the display section and displays a reproduced image (generate complete picture) (para [0044]-[0045]).

At the time of the invention, it would have been obvious to one of ordinary skilled in the art to include the image production system and central electronic complex for notifying the inspector of geographical information as taught by Alexander in the subscriber terminal when alerting information related to the natural disaster disclosed by Shida in view of Ritsuo in order to decrease the time it takes to notify a potential disaster (para [0003]).

Allowable Subject Matter

12. Claim 5 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

13. The following is a statement of reasons for the indication of allowable subject matter:

Claim 5 recites inter alia, *the disaster prediction section determines whether the frequency of receiving the abnormality detection signals from the plurality of mobile communications apparatuses and the maximum values and average values of the electromagnetic signal level are greater than or equal to respective reference values,*

determines whether the number of reports of abnormality detection signals from each area of prediction is greater than or equal to a reference value,

determines whether the reports greater than or equal to the reference value have been received in a same time period, and

predicts occurrence of the natural disaster per area of prediction based on results of these determinations.

The references of record do not teach or suggest the aforementioned limitation, nor would it be obvious to modify those references to include such limitation.

Conclusion

14. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Tentij et al. (US Patent Number 6,513,129) discloses a system and method for managing faults using a gateway having the system receive a specified number of alarms within a specified period of time and counts the number of alerts received in a given time before an alarm is generated with a specified severity level (col 13, line 62 - col 14, line 17);

Nakajima (US Patent Number 6,195,549) discloses a digital mobile communication system including communication between bas stations and mobile stations (fig 1, ABS);

Fujinawa et al. (US Patent Number 5,694,129) discloses an earthquake prediction system for observing electromagnetic field including a local seismic electromagnetic field discriminator for calculating the maximum amplitude value of the signal (col 4, lines 19-41);

Rao et al. (US Patent Application Publication 2004/0075552) discloses an alert system for detecting natural disasters while using a telecommunications network which include wireless sensor modules for collecting geographic data from the environment (fig 1 & 2, ABS).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to RICKY NGON whose telephone number is (571)270-

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3340. The examiner can normally be reached on Mondays to Thursdays from 7:00 am to 5:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Anh T. Mai can be reached on (571)272-1995. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Anh T. Mai/

Supervisory Patent Examiner, Art Unit 4148

/Ricky Ngon/
Examiner, Art Unit 4148